

Demolish an old house and build a new one: practical steps

What it involves to demolish an old house and build a new one on the same plot. Assessment, permits, project, construction. PAPIK Group's practical guide.

When demolishing is the right decision

Not every old home should be demolished. In fact, most can be retrofitted with a well-designed project. There are five situations in which replacement is usually the better option, and they should be identified before incurring any project expense.

A compromised or non-retrofitable structure is the first one. Significant structural cracks, differential settlement, an unfavourable Building Technical Inspection (ITE): if the technical assessment detects two or more of these indicators simultaneously, retrofitting may be technically possible but economically absurd. A retrofit cost above 70% of the cost of new construction is the second one, and it is the rule of thumb most commonly used in the sector. A layout unsuitable for modern living is the third: compartmentalised houses with long corridors, low ceilings and insufficient natural light are difficult to transform while keeping the existing structure. Energy efficiency that cannot be salvaged is the fourth: walls without insulation, old windows, structural thermal bridges built into the original design. The fifth comprises unworkable legal aspects, such as habitability certificates or ITE reports that would require regularisation costs higher than the value they bring to the future project.

Prior assessment: three analyses before deciding

Before considering demolition, we run three parallel analyses that together determine whether replacement is the right decision.

The technical analysis of the current structure is the first. A building surveyor's visit, assessment of foundations, load-bearing walls, slabs and roof. If persistent damp or serious structural damage is detected, it is documented with direct implications for the subsequent decision.

The urban planning analysis is the second. Verification of the applicable local urban plan (POUM), residual buildable area, permitted footprint, heights, setbacks. Often the current plot allows for more square metres to be built than the old house occupies, and this is one of the most frequent reasons to justify replacement: the plot allows for a significantly larger or better laid-out home than the one currently standing.

The economic analysis is the third. A comparison between the cost of full retrofit and the cost of demolition plus new construction, including all line items. Retrofitting always seems cheaper until a serious assessment is run with all the necessary points included. When the three analyses point in the same direction, the decision is clear.

Demolition permit: what it involves

The demolition permit, also called a tear-down permit, is different from the major works permit and must be processed separately (although it can often be processed in parallel). It requires a technical demolition project signed by a registered architect or building surveyor, a waste management study under Catalan regulations, a health and safety plan, processing before the relevant municipal council with the applicable municipal fees, and a specific deposit for waste management.

If the property is in Bellaterra or Cerdanyola del Vallès, we have detailed the specific process for that municipality in another article: [Demolition permit process in Cerdanyola del Vallès and Bellaterra](#). Indicative processing timelines range between 4 and 12 weeks from full submission of documentation, and may extend depending on the workload of the municipal planning office.

Designing the new build: making the most of the plot

This is the moment in the process when the owner recovers everything the old house failed to offer. The local urban plan (POUM) and residual buildable area allow more square metres than currently exist to be built in many cases, even 30% or 50% more on plots with modest original constructions. This residual buildable area is an asset belonging to the owner that the new build must take full advantage of.

The orientation and slope of the plot can be used much more efficiently in a new build than in a retrofit. The old house often ignored these factors or addressed them sub-optimally. With a new build, key rooms are placed with the best solar orientation, and the slope of the plot can be turned into a construction asset rather than a problem. Alignments, permitted heights and applicable typologies define the building envelope, and the new building can be designed generously within that frame.

The new house is efficient from the very first design: continuous insulation, controlled airtightness, ventilation with heat recovery, thermal bridges resolved at project stage. All of these elements are addressed before breaking ground, which structurally distinguishes new construction from a retrofit, where each element must be integrated while respecting the existing structure.

Execution: controlled demolition and new construction

Professional demolition is not destructive tear-down. It is a controlled process with three characteristics that distinguish it from conventional tear-down. The recovery of materials when possible (noble timber beams, period ceramic pieces, stone) allows elements to be reused in the new project as decorative features, providing physical continuity to the home. Orderly waste management by mandatory categories (concrete, ceramics, timber, metals, plastics, glass, special waste such as asbestos if present) complies with Catalan regulations on construction waste management. Coordination with neighbours is resolved through prior reports if the works may affect adjacent property, safety measures along the perimeter of the works, and communication of working hours to minimise disturbance.

Once demolition is finished, the new build can begin immediately or after a pause depending on the permit calendar. When both permits have been processed in parallel, the new build starts virtually without interruption.

Indicative cost: factors that weigh in

We do not publish specific figures in this article, because each project has its own cost defined by many specific factors. Those that weigh most on the final budget are the square metres of the new build (which may be larger than the existing ones if the local urban plan (POUM) allows it), the construction system chosen (lightweight timber frame, CLT, hybrid systems, traditional construction), interior and exterior finishes (basic, mid-high or premium tier), the mechanical and technological systems incorporated (HVAC, photovoltaics, home automation), the type of roof and façade, the size and complexity of the prior demolition, the location (which varies labour and material costs), and the target energy certification (conventional, Passivhaus, EnerPHit).

To obtain an indicative estimate adapted to the specific case, you can use PAPIK Group's [budget configurator](#), which combines these factors into a personalised estimate delivered by email with a detailed PDF.

Indicative timelines

Each case has its own calendar, defined by project complexity and site particularities. The usual ranges that cover the majority of cases are the following.

Assessment and project take between three and eight months. The demolition permit, between two and five months. The major works permit, which can be processed in parallel with the demolition permit, takes between four and twelve months. The works themselves take between nine and eighteen months.

If everything proceeds without setbacks, the complete process takes between fourteen and twenty-four months from first contact to handover of keys. Each case has its own real calendar, defined before signing the construction contract.

When PAPIK Group does it: our experience in demolition and replacement

We have several documented projects that combine prior demolition and new construction. [K-Iturbi](#), in Bellaterra, is a certified Passivhaus built after a process of replacing an existing home. [K-Botigues](#), in Castelldefels, is an Eskimohaus® with prior tear-down explicitly mentioned in the project. Both cases illustrate how the process is resolved when organisation and coordination between permits are properly planned.

If your home is in Bellaterra or in the Vallès Occidental county, we have worked on this type of process with certified projects in the area. You can find more details on the Bellaterra case on the [page dedicated to the municipality](#).

Frequently asked questions

What is the difference between full demolition and partial demolition?

Full demolition removes the entire structure. Partial demolition keeps a part of it, for example a façade protected by a heritage catalogue. Partial demolition is usually more expensive because it requires coordinating preservation with new construction, which adds complexity to the building process.

Can more square metres be built than the previous house had?

Often yes, especially on plots with residual buildable area. The new house can take advantage of the maximum the local urban plan (POUM) allows, which is part of the initial urban planning analysis and is often one of the reasons that justify replacement instead of retrofitting.

Is it necessary to vacate the house during the process?

Yes. Unlike a partial retrofit, the demolition plus new construction process requires the home to be empty throughout the entire period, usually between fourteen and twenty-four months.

What happens with furniture and recoverable structures?

It is part of the initial planning. Some pieces can be reused in the new project (noble timber, period ceramics, unique decorative pieces) as decorative elements. Most, however, leave through waste management if they do not provide reusable value.

Are there tax incentives for replacing with an efficient home?

Yes. Green mortgages offer a discount for high-energy-efficiency homes, as detailed in the article on [green mortgages](#). Some municipal subsidies (check the municipal ordinance in force) also favour replacement with class A energy rating.

If you are considering replacing your current home in Bellaterra or in the Vallès Occidental county, a free technical site visit allows feasibility and investment range to be assessed.

Request a demolition plus new construction assessment: papik.cat/en/areas/bellaterra.

Read also:

[Replace or retrofit: when each option is worthwhile](#)

[Demolition permit process in Cerdanyola del Vallès and Bellaterra](#)

[Bellaterra: Passivhaus specialists in the municipality](#)

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